

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent application of: ROTHSCCHILD, Max F., et al.

For: GENETIC MARKERS FOR IMPROVED MEAT CHARACTERISTICS IN ANIMALS
(MC4R),

the specification of which is being transmitted herewith.

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

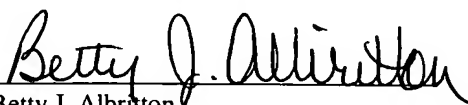
Attached are Forms PTO/SB/08A and 08B (formerly Form PTO-1449) listing the relevant art known to the applicant herein. The Examiner is requested to consider the references and make them of record. This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application Serial No. 09/538,165, filed on March 30, 2000. Each of the references listed on Forms PTO/SB08A and 08B were submitted to, and/or cited by, the Patent Office in the prior application and, therefore, are not required to be provided in this application.

Also attached is new Form PTO/SB/08B (formerly Form PTO-1449) listing the relevant art known to the applicant herein. Copies of these new references are enclosed. The Examiner is requested to consider the references and make them of record.

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CERTIFICATE OF MAILING BY EXPRESS MAIL

I hereby certify that this document and the documents referred to as enclosed therein are being deposited with the U.S. Postal Service in an envelope as "Express Mail Post Office to Addressee" addressed to: Box NEW APP - FEE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, prior to 5:00 p.m. on the 1 day of April, 2004.

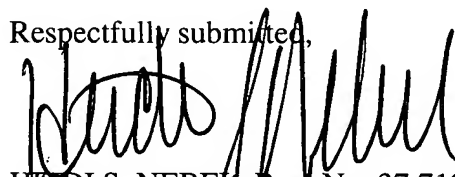

Betty J. Albritton
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Applicants disclose herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose. Legible copies of all items listed in Forms PTO/SB/08A and 08B (formerly Form PTO-1449) accompany this information statement, except those identified above.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. (Notice of January 9, 1992, 1135 O.G. 13-25, at 25.)

Respectfully submitted,



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Attorneys of Record

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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete if Known			
		Application Number	Continuation of 09/538,165		
		Filing Date			
		First Named Inventor	ROTHSCHILD, MAX F.		
		Art Unit	1634		
		Examiner Name	Einsmann, J.		
Sheet	1	of	1	Attorney Docket Number	P04486US01

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	Geller, Frank, et al. "Melanocortin-4 Receptor Gene Variant I103 is Negatively Associated with Obesity" Am. J. Hum. Genet. 74:572-581, 2004	
	2	Kim, K.-S., et al. "Functional and Phylogenetic Analyses of a Melanocortin-4 Receptor Mutation in Domestic Pigs" Domestic Animal Endocrinology, 26 (2004) 75-86	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449A/PTO				Complete if Known	
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	09/538,165
				Filing Date	March 30, 2000
				First Named Inventor	ROTHSCHILD, Max F.
				Art Unit	1634
				Examiner Name	Einsmann, J.
Sheet	1	of	1	Attorney Docket Number	P04486US0

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. ¹	Document Number Number - Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-			
		US-			
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FOREIGN PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Nezer C. et al., "An imprinted QLT with major effect on muscle mass and fat deposition maps to the IGF2 locus in pigs", Nature Genetics, Vol. 21, No. 2 (1999-02) pages 155-156 XP002204960	

Examiner Signature	Date Considered
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¹ Applicant's unique citation designation number (optional). ² See Kinds of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

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SUPPLEMENTAL

Section 2. Form PTO - 1449 (Modified)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))	ATTY. DOCKET NO. P04486US0	SERIAL NO. 09/538,165
	ISURF 2697	
	APPLICANT ROTHSCHILD, et al.	
	FILING DATE March 30, 2000	GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,614,364	03/25/97	TUGGLE, ET AL	C12Q	1/68	MAY 16, 1994

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DOCUMENT NUMBER	PUBLI- CATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 97 23644A	07/03/97	PCT	C12Q	1/68		
	WO 97 47316A	12/18/97	PCT	C12Q	1/68		
	WO 00/06777	02/10/00	PCT	C12Q	1/68		

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant Pages, Place of Publication***)

	Andersson, L., et al., "Genetic Mapping of quantitative trait loci for growth and fatness in pigs", <u>Science</u> , 263:1771-1774
	Gotoda, T., "Molecular screening of the human melanocortin-r receptor gene: identification of a missense variant showing no association with obesity, plasma glucose, or insulin", <u>Diabetologia</u> 40:976-979 (1997)
	Kim, K-S, "A missense variant of the porcine melanocortin-4 receptor (MC4R) gene is associated with fatness, growth, and feed intake traits", <u>Mammalian Genome</u> , 11:131-135 (2000)
	Unruh, J.A., "The influence of genotype, sex, and dietary lysine on Pork subprimal cut yields and carcass quality of pigs fed to either 104 or 127 kilograms", <u>J. Anim. Sci.</u> 74:1274-1283 (1996)
	Wood, J.D., "Animal nutrition and metabolism group symposium on improving meat production for future needs", <u>Proceedings of the Nutrition Society</u> 58:363-370 (1999)

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.